US Army Corps
of Engineers
Engineer Research and
Development Center

Fact Sheet

Construction Engineering Research
Laboratory (CERL)
P.O. Box 9005
Champaign, IL 61826-9005

Public Affairs Office
Phone: (217)-352-6511
Fax: (217) 373-7222
http://www.cecer.army.mil

January 2000 (CF-19)

REMR MANAGEMENT SYSTEMS FOR CIVIL WORKS STRUCTURES

The Problem

The U.S. Army Corps of Engineers oversees a large number of Civil Works structures. Many of these structures are now or will soon be reaching the end of their design life. A significant amount of funding will be needed to maintain and repair these structures so they will serve or function as intended. Their service lives must be extended as long as possible due to limited resources for constructing replacement structures. These resource limitations require that maintenance and repair (M&R) needs be prioritized and available funds spent efficiently. Prioritization of M&R needs can be greatly facilitated by knowing the current condition and the expected or probable future condition of structures, as well as the effectiveness of various M&R alternatives.

The Technology

The U.S. Army Construction Engineering Research Laboratory (CERL) is currently developing the Repair, Evaluation, Maintenance, and Rehabilitation (REMR) Management Systems for numerous types of Civil Works Structures owned by the Corps. REMR Management Systems are designed to be decision-support tools for determining when, where, and how to effectively allocate M&R dollars for Civil Works structures. These systems are being developed to provide: (1) objective condition assessment procedures, (2) means for comparing the condition of facilities and tracking change in condition over time, and (3) an information source to assist in the budget prioritization process. The objective of the REMR Management Systems is to provide uniform and objective condition assessment procedures and to help managers and engineers obtain the best facility condition for a given budget level.

Benefits/Savings

REMR Management Systems will provide engineers with practical tools to assist in the inspection and assessment of structures and their components. This information is important to effectively prioritize budgets. They will provide the capability to make quantitative comparisons of current condition among structures and their components, an indication of a component's future condition, and a means towards efficient and optimal maintenance planning.

Status

REMR Management Systems that are complete address miter lock gates, sector lock gates, tainter dam and lock gates, roller dam gates, gate operating equipment, lock filling and emptying valves, concrete lockwalls, concrete gravity dams, stone navigation training dikes and revetments, and timber navigation training dikes. Technical reports on these systems are available from the National Technical Information Service. Software is available from CERL.

Systems currently under development address embankment dams, non-rubble breakwaters and jetties, and hydropower equipment. Technical development of these systems has been completed although there may be some modification before final publication. The most current REMR software is available on the Internet at http://www.cecer.army.mil/fl/remr/remr.html

Point of Contact

CERL POC is David T. McKay, COMM 217-373-3495; toll-free 800-USA-CERL; FAX 217-373-3490; email d-mckay@cecer.army.mil; or CERL, ATTN: CECER-CFF, P.O. Box 9005, Champaign, IL 61826-9005.

The National Technical Information Service is located at 5282 Port Royal Road, Springfield, VA 22161 or on the web at http://www.ntis.gov.

Visit the CERL home page at http://www.cecer.army.mil